

### **REMARKS**

In the June 8, 2005 Office Action, all of the claims, claims 1-10, stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

#### ***Status of Claims and Amendments***

In response to the June 8, 2005 Office Action, Applicant respectfully traverses the rejections, and has included comments to support the traversal. None of the claims is being amended by the current Amendment. Thus, claims 1-10 are pending, with claims 1 and 5 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of the following comments.

#### ***Rejections - 35 U.S.C. § 103***

On pages 5 and 6 of the Office Action, claims 1, 4, 5, and 9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,186,557 (Arai et al.) in view of U.S. Patent No. 4,391,096 (Polzer et al.) in view of U.S. Patent No. 3,797,243 (Trusov). On pages 6-8 of the Office Action, claims 1, 4, 5, 9, and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,726,185 (Shigemasa et al.) in view of Polzer et al. in view of Trusov. On page 8 of the Office Action, claims 2, 3, 6, and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Arai et al. as modified by Polzer et al. as modified by Trusov in view of U.S. Patent No. 2,242,515 (Dodge). On page 9 of the Office Action, claims 2, 3, and 6-8 stand rejected as being unpatentable over Shigemasa et al. as modified by Polzer et al. as modified by Trusov in view of Dodge. In response, Applicant respectfully traverses the rejections thereto and has included comments to support the traversal. Specifically, Applicant respectfully reasserts that there is no motivation to combine the various references.

*Claims 1 and 5*

The Office Action relies on Arai et al. or Shigemasa et al. to disclose a torque converter that has an impeller, turbine, and stator constituting a torus with a flatness ratio of less than 0.8. Further, the Office Action relies on Polzer et al. to disclose a turbine wheel having 37 blades, which is a feature not recited in claim 1 or 5 of the present application. Moreover, the Office Action relies on Trusov to disclose an impeller with blades that are substantially the same number as those of the turbine wheel.

Applicant respectfully asserts that Trusov “teaches away” from a torque converter having a flatness ratio of less than 0.8. Specifically, as seen in the Figures and as stated in column 7, lines 33-36, Trusov discloses a torque converter with a *circular* structure. More specifically, as seen in Figure 6, Trusov states that the outer torus 9 (mistakenly identified in the patent as 10) “in the *meridional* section has the shape of the *circumference* with a relation of its *radius*  $r_1$  to the maximum radius  $R$  of the circulation ring being *equal* to 0.317.” Clearly, Trusov teaches a circular structure as a critical part of the invention. Since the flatness ratio of a circular structure is 1.0, Applicant respectfully asserts that Trusov teaches away from torque converters with smaller ratios. Thus, Applicant respectfully asserts that one skilled in the art would not be motivated to combine Trusov with Shigemasa et al. or Arai et al. with or without modification from Polzer et al. to create a torque converter having a flatness ratio of less than 0.8 as recited in the claims 1 and 5 of the present application.

Further, Applicant respectfully reasserts that Trusov teaches away from torque converters having impeller blades and/or turbine blades exceeding 36. As seen in Table 1 in column 8, lines 23-35 of Trusov, Trusov teaches that maximum efficiency for the Trusov torque converter is obtained with an impeller having 15-36 blades and a turbine having 15-25 blades, and thus teaches away from having more. Thus, Applicant respectfully asserts that

one skilled in the art would not be motivated to combine Trusov with Shigemasa et al. or Arai et al. with or without modification from Polzer et al. to create a torque converter with an impeller having 37 blades as recited in the claims 1 and 5 of the present application.

It has been long held that teaching away is a *per se* demonstration of lack of prima facie obviousness. *U.S. v Adams*, 383 US 39, 148 USPQ 479 (1966); *In re Dow Chemical Co.*, 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Nielson*, 816 F.2d 1567, 2 USPQ2d 1525 (Fed. Cir. 1987).

*Claims 2-4 and 6-10*

Applicant respectfully traverses the rejections to claims 2-4 and 6-10 for the reasons stated above, and further because Dodge also fails to disclose an impeller having at least 37 blades.

Clearly the recited arrangements are ***not*** disclosed or suggested by the prior art of record. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does ***not*** make the modification obvious, unless the prior art ***suggests*** the desirability of the modification. Accordingly, the prior art of record lacks any suggestion or expectation of success for combining the patents to create the Applicant's unique arrangement of a torque converter.


Therefore, Applicant respectfully requests that these rejections be withdrawn in view of the above comments and amendments.

\* \* \*

In view of the foregoing comments, Applicant respectfully asserts that claims 1-10 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

- Appl. No. 10/717,613
- Response dated July 27, 2005
- Reply to Office Action of February 15, 2005

Respectfully submitted,

  
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